

The SLS machine preheats the bulk powder material in the powder bed somewhat below its melting point, to make it easier for the laser to raise the temperature of the selected regions the rest of the way to the melting point.

The term “exemplary” is used herein to represent one example, instance or illustration that may have any number of alternates. Any implementation described herein as “exemplary” should not necessarily be construed as preferred or advantageous over other implementations.

While at least one exemplary embodiment has been presented in the foregoing detailed description, it should be appreciated that a vast number of variations exist. It should also be appreciated that the exemplary embodiment or exemplary embodiments are only examples, and are not intended to limit the scope, applicability, or configuration of the embodiments in any way. Rather, the foregoing detailed description will provide those skilled in the art with a convenient road map for implementing an exemplary embodiment of the invention. It being understood that various changes may be made in the function and arrangement of elements described in an exemplary embodiment without departing from the scope of the invention as set forth in the appended claims.

What is claimed is:

1. A seeker, comprising:
 - a first receiver configured to receive an infrared signal;
 - a second receiver configured to receive a radio frequency signal;
 - a dichroic mirror configured to reflect the infrared signal toward the first receiver and to transmit the radio frequency signal toward the second receiver; and
 - a stray light baffle disposed proximate the second transceiver and configured to block stray ray bundles, the stray light baffle having a coarse surface comprising a plurality of peaks and a plurality of valleys, wherein an average height of the plurality of peaks is greater than or equal to an average width of the plurality of valleys.
2. The seeker of claim 1, wherein the average width of the valleys at the mean surface height is less than or equal to four thousandths of an inch.
3. The seeker of claim 1, wherein the stray light baffle further comprises a leading edge, wherein the leading edge is a predetermined distance from one of the first receiver and second receiver.
4. The seeker of claim 1, wherein the stray light baffle is manufactured using a selective laser sintering process.
5. The seeker of claim 4, wherein the selective laser sintering process builds the stray light baffle in layers, wherein each layer is substantially perpendicular to a leading edge of the stray light baffle.

6. The seeker of claim 4, wherein the stray light baffle is primarily made of nylon.
7. The seeker of claim 6, wherein the stray light baffle further comprises glass microspheres.
8. The seeker of claim 1, wherein the stray light baffle is substantially cylindrical.
9. The seeker of claim 1, wherein the stray light baffle is substantially conically frustum.
10. A sensor system, comprising:
 - a first receiver configured to receive a ray bundle; and
 - a stray light baffle having substantially coarse walls and disposed proximate the first receiver, the stray light baffle configured to protect the first receiver from undesirable ray bundles.
11. The sensor system of claim 10, wherein the stray light baffle includes a plurality of peaks and a plurality of valleys, wherein an average height of the plurality of peaks is greater than or equal to an average width of the plurality of valleys at the mean surface height.
12. The sensor system of claim 11, wherein the average width of the valleys is less than or equal to four thousandths of an inch.
13. The sensor system of claim 10, wherein the stray light baffle further comprises a leading edge, wherein the leading edge is a predetermined distance from the first receiver.
14. The sensor system of claim 10, wherein the stray light baffle is manufactured using a selective laser sintering process.
15. The sensor system of claim 14, wherein the selective laser sintering process builds the stray light baffle in layers, wherein each layer is substantially perpendicular to a leading edge of the stray light baffle.
16. The sensor system of claim 10, wherein the stray light baffle is primarily made of nylon.
17. The sensor system of claim 10, wherein the stray light baffle further comprises glass microspheres.
18. The sensor system of claim 10, wherein the stray light baffle is substantially cylindrical.
19. The sensor system of claim 10, wherein the stray light baffle is substantially conically frustum.
20. A method for building a stray light baffle, comprising:
 - determining a shape of the stray light baffle;
 - determining at least one material for building the stray light baffle;
 - determining an orientation to build the stray light baffle; and
 - building the stray light baffle using a selective laser sintering process based upon the determined shape, the at least one determined material and the determined orientation.

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